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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,464	03/31/2004	Richard D. Haun	OPE-1001CP-2	8022
27447	7590	02/21/2006	EXAMINER	
SHAWN HUNTER P.O Box 270110 HOUSTON, TX 77277-0110			MAYO, TARA L	
			ART UNIT	PAPER NUMBER
			3671	

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/814,464

Applicant(s)

HAUN, RICHARD D.

Examiner

Tara L. Mayo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,6 and 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,6 and 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02 December 2005 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 through 3 and 7 through 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parsons (U.S. Patent No. 4,165,706) in view of Ulbricht (U.S. Patent No. 3,507,242).

Parsons '706, as seen in Figures 1, 2, 4a and 4b, shows a floating structure (10) comprising:

with regard to claim 1,

a floatable hull that presents an upper deck (20); and

a column assembly (27) that is retractable and extendable below the hull; and

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with regard to claim 10,

a floatable hull that presents an upper deck (20) and defines a hollow central section therewithin; and

a column assembly (27) mounted within the hollow central section and being retractable and extendable below the hull.

Parsons '706 fails to teach:

with regard to claim 1,

a storage vessel for storage of a material of the group consisting of hydrocarbon gas and solid hydrocarbon hydrates;

the storage vessel being surrounded by an environmental boundary;

the temperature being controlled within the environmental boundary; and

the temperature being controlled via circulation of a fluid of desired temperature within the boundary;

with regard to claim 2,

the storage vessel being disposed within the floatable hull;

with regard to claim 3,

the storage vessel being located atop the floatable hull;

with regard to claim 9,

the pressure within the storage vessel being controlled;

with regard to claim 10,

a plurality of storage vessels;

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with regard to claim 11,

at least one of the storage vessels being located upon the upper deck; and

with regard to claim 12,

at least one of storage vessels being located within the floating hull.

Ulbricht '242, as seen in Figures 1 and 4, shows a tanker for the transportation of liquefied gases comprising a plurality of storage vessels (3, 9) for storage of a material of the group consisting of hydrocarbon gas and solid hydrocarbon hydrates (col. 1, lines 23 through 25), wherein the storage vessels are disposed within the floating hull (per the prior art embodiment of Figure 1), and wherein the storage vessels are disposed on the upper deck (Figure 4) for ease of tank repair (col. 2, lines 41 through 48). The storage tanks shown by Ulbricht '242 each comprise an environmental boundary in the form of an insulated shell (col. 4, line 19), wherein the pressure of the storage tanks is controlled via pressure pieces (19; col. 6, lines 3 through 6). Furthermore, Ulbricht '242 teaches the prior knowledge of flushing the space (i.e., environmental boundary) between tank walls with inert gases to effect cooling (col. 2, lines 35 through 40), the pressure of the gases being controlled by their confinement between the tank walls.

With regard to claims 1, 2, 10 and 12, it would have been obvious to one having ordinary skill in the art of marine structures at the time the invention was made to modify the device shown by Parsons '706 such that it would include a plurality of storage vessels in the hull as

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taught to be known by Ulbricht '242. The motivation would have been to provide for the storage of hydrocarbon gas acquired by drilling operations.

With regard to claims 1, 3, 10 and 11, it would have been obvious to one having ordinary skill in the art of marine structures at the time the invention was made to modify the device shown by Parsons '706 such that it would include a plurality of storage vessels on the deck as taught by Ulbricht '242. The motivation would have been to provide for the storage of hydrocarbon gas acquired by drilling operations.

With regard to claims 1 and 9, it would have been obvious to one having ordinary skill in the art of marine structures at the time the invention was made to modify the device shown by Parsons '706 such that it would include a storage vessel surrounded by an environmental boundary with the temperature controlled via circulation of a fluid of desired temperature and pressure as taught to be known by Ulbricht '242.

4. Claims 1, 6, 10 and 13 through 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Field et al. (U.S. Patent No. 4,627,767) in view of Ulbricht (U.S. Patent No. 3,507,242).

Field et al. '767, as seen in Figures 1 through 4, show a floating structure comprising:  
with regard to claims 1 and 10,

a floatable hull (28) that presents an upper deck; and

a column assembly (18, 22 and 23), collectively that is retractable and extendable below the hull.

Field et al. '767 fails to teach:

with regard to claim 1,

a storage vessel for storage of a material of the group consisting of hydrocarbon gas and solid hydrocarbon hydrates;

with regard to claim 6,

the storage vessel being disposed within the column assembly of the floating structure;

with regard to claim 10,

a plurality of storage vessels; and

with regard to claim 13,

at least one of the storage vessels being located within the column assembly.

Ulbricht '242, as seen in Figures 1 and 4, shows a tanker for the transportation of liquefied gases comprising a plurality of storage vessels (3, 9) for storage of a material of the group consisting of hydrocarbon gas and solid hydrocarbon hydrates (col. 1, lines 23 through 25), wherein the storage vessels are disposed within the floating hull (per the prior art embodiment of Figure 1), and wherein the storage vessels are disposed on the upper deck (Figure 4) for ease of tank repair (col. 2, lines 41 through 48). The storage tanks shown by Ulbricht '242 each comprise an environmental boundary in the form of an insulated shell (col. 4, line 19). Furthermore, Ulbricht '242 teaches the prior knowledge of flushing the space (i.e., environmental boundary) between tank walls with inert gases to effect cooling (col. 2, lines 35 through 40) the pressure of the gases being controlled by their confinement between the tank walls.

With regard to claims 1, 6, 10 and 13, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device shown by Field et al. '767 such that it would include at least one storage vessel as taught by Ulbricht '242 disposed within the column assembly. The motivation would have been to provide for the storage of hydrocarbon gas acquired from drilling operations.

With regard to claims 14 through 16, the method steps recited therein are inherent to the use of the device shown by the combination of Field et al. '767 and Ulbricht '242. Specifically, with regard to the claimed limitation of circulating a fluid of desired temperature about the storage vessel, the step is met by the teachings of Ulbricht '242 at col. 2, lines 35 through 40.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.




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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

tlm

15 February 2006

  
**TARA L. MAYO**  
**PATENT EXAMINER**